

1 ABSTRACT OF THE DISCLOSURE

2 Processes are disclosed which facilitate improved high density
3 memory circuitry, most preferably dynamic random access memory
4 (DRAM) circuitry. A semiconductor memory device includes, i) a total
5 of no more than 68,000,000 functional and operably addressable memory
6 cells arranged in multiple memory arrays formed on a semiconductor
7 die; and ii) circuitry formed on the semiconductor die permitting data
8 to be written to and read from one or more of the memory cells, at
9 least one of the memory arrays containing at least 100 square microns
10 of continuous die surface area having at least 128 of the functional and
11 operably addressable memory cells. More preferably, at least 100
12 square microns of continuous die surface area having at least 170 of
13 the functional and operably addressable memory cells.